

09-04-01

A

PTO/SB/05 (11-00)

Approved for use through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Please type a plus sign (+) inside this box ☐ Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

# UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.

J-2605A

First Inventor

Richard W. Avery

Title

Production of Stable Hydrolyzable  
Organosilane Solutions

Express Mail Label No.

EJ484161884US

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

- ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
  - ☐ Applicant claims small entity status.  
See 37 CFR 1.27.
  - ☒ Specification [Total Pages (preferred arrangement set forth below)
    - Descriptive title of the invention
    - Cross Reference to Related Applications
    - Statement Regarding Fed sponsored R & D
    - Reference to sequence listing, a table, or a computer program listing appendix
    - Background of the Invention
    - Brief Summary of the Invention
    - Brief Description of the Drawings (if filed)
    - Detailed Description
    - Claim(s)
    - Abstract of the Disclosure
  - ☐ Drawing(s) (35 U.S.C. 113) [Total Sheets   - ☐ Oath or Declaration [Total Pages   - ☐ Newly executed (original or copy)
  - ☐ Copy from a prior application (37 CFR 1.63 (d))  
(for continuation/divisional with Box 18 completed)
    - ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s)  
named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
- ☐ Application Data Sheet. See 37 CFR 1.76

ADDRESS TO:

Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

- ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
- Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)
  - ☐ Computer Readable Form (CRF)
  - Specification Sequence Listing on:
    - ☐ CD-ROM or CD-R (2 copies); or
    - ☐ paper
  - ☐ Statements verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

- ☐ Assignment Papers (cover sheet & document(s))
- ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney  
(when there is an assignee)
- ☐ English Translation Document (if applicable)
- ☒ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
- ☐ Preliminary Amendment
- ☒ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
- ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
- ☐ Request and Certification under 35 U.S.C. 122  
(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
- ☒ Other: **SEE ATTACHED LIST**

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☒ Divisional ☐ Continuation-in-part (CIP)

of prior application No. 09/274,273

Prior application information

Examiner

M. Cole

Group Art Unit

1743

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been previously omitted from the submitted application parts.

## 19. CORRESPONDENCE ADDRESS

☒ Customer Number or Bar Code Label

28165  
(Insert Customer Number or Bar Code Label here)

or ☐ Correspondence address below

Name

S. C. JOHNSON & SON, INC.

Address

City

State

Zip Code

Country

Telephone

Fax

Name (Print/Type)

J. William Frank, III.

Registration No. (Attorney/Agent)

25,626

Signature

*[Signature]*

Date

8/31/01

Burden Hour Statement. This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision

TOTAL AMOUNT OF PAYMENT (\$ 820.00

Complete if Known

Application Number  
Filing Date August 31, 2001  
First Named Inventor Richard W. Avery  
Examiner Name  
Group Art Unit  
Attorney Docket No J-2605A

## METHOD OF PAYMENT

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to

Deposit Account Number 10-0849  
Deposit Account Name S. C. JOHNSON & SON, INC.

- ☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17  
☐ Applicant claims small entity status. See 37 CFR 1.27

2. ☐ Payment Enclosed:

☐ Check ☐ Credit card ☐ Money Order ☐ Other

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
101 710	201 355	Utility filing fee	710
106 320	206 160	Design filing fee	
107 490	207 245	Plant filing fee	
108 710	208 355	Reissue filing fee	
114 150	214 75	Provisional filing fee	

SUBTOTAL (1) (\$ 710

### 2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent Claims	-20** =	X	
Multiple Dependent	-3** =	X	

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
103 18	203 9	Claims in excess of 20
102 80	202 40	Independent claims in excess of 3
104 270	204 135	Multiple dependent claim, if not paid
109 80	209 40	** Reissue independent claims over original patent
110 18	210 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$

\*\*or number previously paid, if greater. For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105 130	205 65	Surcharge - late filing fee or oath	
127 50	227 25	Surcharge - late provisional filing fee or cover sheet	
139 130	139 130	Non-English specification	
147 2,520	147 2,520	For filing a request for ex parte reexamination	
112 920*	112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840*	113 1,840*	Requesting publication of SIR after Examiner action	
115 110	215 55	Extension for reply within first month	
116 390	216 195	Extension for reply within second month	
117 890	217 445	Extension for reply within third month	
118 1,390	218 695	Extension for reply within fourth month	
128 1,890	228 945	Extension for reply within fifth month	
119 310	219 155	Notice of Appeal	
120 310	220 155	Filing a brief in support of an appeal	
121 270	221 135	Request for oral hearing	
138 1,510	138 1,510	Petition to institute a public use proceeding	
140 110	240 55	Petition to revive - unavoidable	
141 1,240	241 620	Petition to revive - unintentional	
142 1,240	242 620	Utility issue fee (or reissue)	
143 440	243 220	Design issue fee	
144 600	244 300	Plant issue fee	
122 130	122 130	Petitions to the Commissioner	
123 50	123 50	Petitions related to provisional applications	
126 240	126 240	Submission of Information Disclosure Stmt	
581 40	581 40	Recording each patent assignment per property (times number of properties)	
146 710	246 355	Filing a submission after final rejection (37 CFR § 1.129(a))	
149 710	249 355	For each additional invention to be examined (37 CFR § 1.129(c))	
173 710	279 355	Request for Continued Examination (RCE)	
169 900	169 900	Request for expedited examination of a design application	

Other fee (specify) Terminal Disclaimer

110

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 110

## SUBMITTED BY

Name (Print/Type)	Registration No	Telephone
J. William Frank, III	25,626	262-260-2673
Signature	Date	
	8/31/01	

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Attachment to Utility Patent Application Transmittal

Applicant: Richard W. Avery

Title: Production of Stable Hydrolyzable Organosilane Solutions

2 pgs. Terminal Disclaimer To Obviate A Provisional double Paten Rejection over A Pending Second Application

7 pgs. Plus U.S. Patent 6,113,815 Request For Interference Under 37 C.F.R. 1.607 Accompanying Application

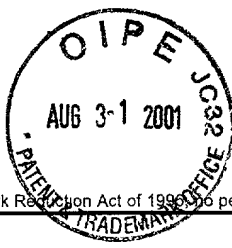
6 pgs. Letter under 37 C.F.R. 1.608.(b)

3 pgs. Inventor's Declaration Under 37 C.F.R. 1.608(b) plus 9 pages Exhibit A

3 pgs. Corroborating Witness Declaration Under 37 C.F.R. 1.608(b) plus 9 pgs. Exhibit A

2 pgs. Information Disclosure Statement

1 pg. Associate Power of Attorney



J-2605A

**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: Richard W. Avery  
Application No./Patent No.: 09/274,273 Filed/Issue Date: March 22, 1999  
Entitled: Production of Stable Hydrolyzable Organosilane Solutions  
S.C. Johnson & Son, Inc., a corporation  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or  
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by, percentage) of its ownership interest is \_\_\_\_\_ %  
in the patent application/patent identified above by virtue of either:

A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 9846, Frame 0951, or for which a copy thereof is attached.

OR

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.  
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.  
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ Copies of assignments or other documents in the chain of title are attached.  
[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

8/31/01  
Date

J. William Frank, III.

J. William Frank, III.  
Signature  
General Patent Counsel

Title

CERTIFICATION UNDER 37 CFR 1.10

I HEREBY CERTIFY THAT THE ACCOMPANYING TRANSMITTAL LETTER AND THE DOCUMENTS REFERRED TO THEREIN ARE BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICES ON THIS DATE.

August 31, 2001

IN AN ENVELOPE AS "EXPRESS MAIL POST OFFICE TO ADDRESSEE" MAILING LABEL NUMBER

EJ484161884US

ADDRESSED TO:

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231.

Sharon L. Klaus  
(PERSON MAILING PAPER)

*Sharon L. Klaus*  
(SIGNATURE OF PERSON MAILING PAPER)

TO: "Patent" 484161884US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Richard W. Avery

Serial No.: - - - - -

Filed: Herewith

Title: PRODUCTION OF STABLE HYDROLYZABLE ORGANOSILANE SOLUTIONS

Commissioner for Patents  
Washington, D.C. 20231

**Request for Interference under 37 C.F.R. § 1.607 Accompanying Application**

Sir:

It is requested that an interference be declared with enclosed U.S. Patent No. 6,113,815 issued on September 5, 2000 based on the following claims 1-3 that were filed with the above-referenced application.

1. A composition comprising a mixture of:

a) an organosilane of the formula  $R_nSiX_{4-n}$ , wherein  $n$  is an integer of from 0 to 3; and  $R$  is, independently, a nonhydrolyzable organic group, and each  $X$  is, independently, a hydrolyzable group; with

b) an ether of the formula  $R-O-R$ , wherein  $R$  is, independently, an organic group, and the ether has a hydroxy functionality.

2. A composition comprising a mixture of:

a) an organosilane of the formula  $R_nSiX_{4-n}$ , wherein  $n$  is an integer of from 0 to 3; and  $R$  is, independently, a nonhydrolyzable organic group, and each  $X$  is, independently, a hydrolyzable group; with

b) an ether of the formula  $R-O-R$ , wherein  $R$  is, independently, an organic group, and the ether has a hydroxy functionality, wherein the ether is a glycol ether.

3. The composition of claim 2, wherein the ether is selected from dipropylene glycol butyl ether, propylene glycol butyl ether, and dipropylene glycol propyl ether.

Source Of The Claims Filed In The Above-Referenced Application

(1) Claim 1 of the above-referenced application has been substantially copied from claim 1 of U.S. Patent No. 6,113,815 with the deletion of the alternative ether carboxylic ester functionality. The exact changes to claim 1 of U.S. Patent No. 6,113,815 that resulted in Claim 1 of the above-referenced application are indicated below with brackets [ ] showing deletions.

- - 1. A composition comprising a mixture of:

a) an organosilane of the formula  $R_nSiX_{4-n}$ , wherein  $n$  is an integer of from 0 to 3; and  $R$  is, independently, a nonhydrolyzable organic group, and each  $X$  is, independently, a hydrolyzable group; with

b) an ether of the formula  $R-O-R$ , wherein  $R$  is, independently, an organic group, and the ether has [either] a hydroxy functionality [or carboxylic ester functionality]. --

(2) Claim 2 of the above-referenced application is an independent claim that limits the ether of the composition of Claim 1 to a glycol ether.

(3) Claim 3 of the above-referenced application further limits the glycol ether of the composition of Claim 2.

#### Suggestion for Counts

The Applicant suggests that a first Count could have the exact language of Claim 1 as filed with the above-referenced application and that a second Count could have the exact language of Claim 2 as filed with the above-referenced application.

#### Correspondence of Claims 1-14, 16-24, 26-27, and 29-31 of U.S. Patent No. 6,113,815 to Claims 1 and 2 of the Present Application

Claims 1-14, 16-24, 26-27, and 29-31 of U.S. Patent No. 6,113,815 correspond to claims 1 and 2 as follows. If a first Count were formulated having the exact language of claim 1 and a second count were formulated having the exact language of claim 2, the following also would describe correspondence to the counts.

Claim 1 of U.S. Patent No. 6,113,815 substantially corresponds to Claim 1 of the present application as shown above in the "Basis Of The Claims Filed In The Above-Referenced Application" section, i.e., with the deletion of the alternative ether carboxylic ester functionality.

Claim 2 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely limits the organosilanes of the composition.

Claim 3 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application when the ether is other than a glycol ether in that it merely limits the ethers of the composition.

Claim 3 of U.S. Patent No. 6,113,815 corresponds to Claim 2 of the present application when the ether is a glycol ether.



Claim 4 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely limits the ethers of the composition.

Claim 5 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely limits the organosilanes of the composition.

Claim 6 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely further limits the organosilanes of the composition.

Claim 7 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely further limits the organosilanes of the composition.

Claim 8 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it adds water to the composition and Claim 1 of the present application uses a “comprising” transition phrase.

Claim 9 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely limits the organosilanes of the composition.

Claim 10 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely limits the use of the composition.

Claim 11 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely adds a carrier other than water to the use of the composition and Claim 1 of the present application uses a “comprising” transition phrase.

Claim 12 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely limits the organosilanes of the composition.

Claim 13 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely limits the organosilanes of the composition.

Claim 14 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely limits the organosilanes of the composition.

Claim 16 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely limits the organosilanes of the composition.

Claim 17 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely limits the organosilanes of the composition.

Claim 18 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely limits the organosilanes of the composition.

Claim 19 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely adds water to the composition and Claim 1 of the present application uses a “comprising” transition phrase.

Claim 20 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it recites an inherent use of the composition.

Claim 21 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it recites an inherent use of the composition.

Claim 22 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it recites an inherent use of the composition.

Claim 23 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it recites an inherent use of the composition.

Claim 24 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it recites an inherent use of the composition.

Claim 26 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it recites an inherent use of the composition.

Claim 27 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it recites an inherent use of the composition.

Claim 29 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it limits the amount of organosilane and ether and merely adds water to the composition and Claim 1 of the present application uses a “comprising” transition phrase.

Claim 30 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it merely limits the ethers of the composition.

Claim 30 of U.S. Patent No. 6,113,815 corresponds to Claim 2 of the present application when the ether of claim 30 is a glycol ether.

Claim 31 of U.S. Patent No. 6,113,815 corresponds to Claim 1 of the present application in that it recites an inherent use of the composition.

#### Support for the Terms in Claims 1, 2 and 3 of the Present Application

The terms of the claims of the application are supported in the Applicant’s specification as shown in the following Table 1.

Table 1

Term In Claims of the Present Application			Supporting Language in Present Specification	
Claim No.	Line Nos.	Term	Page No.	Line Nos.
1	1	Mixture	2	4
1	2-4	an organosilane of the formula $R_nSiX_{4-n}$ , wherein n is an integer of from 0 to 3; and R is, independently, a nonhydrolyzable organic group, and each X is, independently, a hydrolyzable group	3 and 3 and 7	2-5  20-28  21-22
1	5-6	an ether of the formula R-O-R, wherein R is, independently, an organic group, and the ether has a hydroxy functionality	7	17-18

Term In Claims of the Present Application			Supporting Language in Present Specification	
2	1	Mixture	2	4
2	2-4	an organosilane of the formula $R_nSiX_{4-n}$ , wherein n is an integer of from 0 to 3; and R is, independently, a nonhydrolyzable organic group, and each X is, independently, a hydrolyzable group	3 and 3 and 7	2-5  20-28  21-22
2	5-6	an ether of the formula R-O-R, wherein R is, independently, an organic group, and the ether has a hydroxy functionality	7	17-18
2	7	Wherein the ether is a glycol ether	7 and Abstract	17-18  line 3
3	1-2	wherein the ether is dipropylene glycol butyl ether, propylene glycol butyl ether, or dipropylene glycol propyl ether	4	21-22

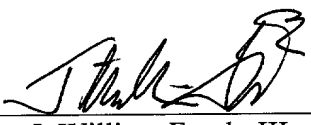
#### Compliance with Certain Time Limits

A claim has been made in the present application which is substantially the same subject matter as a claim of U.S. Patent No. 6,113,815 prior to one year from the date on which U.S. Patent No. 6,113,815 was granted (September 5, 2000).

Papers complying with 37 C.F.R. Section 1.608(b) have been provided with this request.

Respectfully submitted,

Dated: 8/31/, 2001

By:   
J. William Frank, III  
Registration No. 25,626  
S.C. Johnson & Son, Inc.  
Legal Department  
1525 Howe Street  
Racine, WI 53403  
(262) 260-2673

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Richard W. Avery

Serial No.: - - - - -

Filed: Herewith

Title: PRODUCTION OF STABLE HYDROLYZABLE ORGANOSILANE SOLUTIONS

Commissioner for Patents  
Washington, D.C. 20231

**Letter under 37 C.F.R. 1.608(b)**

Sir:

Enclosed herewith are a Declaration under 37 C.F.R. 1.608(b) of Richard W. Avery, applicant herein, with attached Exhibit A, and a corroborating declaration from a non-inventor witness, Ian C. Callaghan, in support of the attached Request for Interference with U.S. Patent No. 6,113,815 issued on September 5, 2000.

The Applicant's showing is adequate to establish at least a *prima facie* case of priority of invention under 37 C.F.R. §1.608(b). In this regard, it has been stated by the Court of Appeals for the Federal Circuit in *Hahn v. Wong*, 892 F.2d 1028, 1032 (CAFC 1989) that

To establish reduction to practice of a chemical composition, it is sufficient to prove that the inventor actually prepared the composition and knew it would work.

The Applicant has established a *prima facie* case entitling him to proceed with the interference because the critical reference date of U.S. Patent No. 6,113,815 is no earlier than July 18, 1997 (the filing date of the provisional application from which U.S. Patent No. 6,113,815 claims benefit) and the Applicant's declaration shows evidence of his reduction to practice of the claims of the present application having interfering subject matter substantially

corresponding to claims 1-14, 16-24, 26-27, and 29-31 of U.S. Patent No. 6,113,815 in the United Kingdom (a WTO country since January 1, 1995) prior to July 18, 1997. In particular, the documents evidence that he actually prepared the compositions of the claims of the present application, tested that they would work for the desired utility, and appreciated the result, at least as early as January 23, 1997.

Specifically, looking at Exhibit A, page 2 that is attached to the Declaration under 37 C.F.R. 1.608(b) of Richard W. Avery, the inventor of the present application, there is shown a summary of experiments performed by the inventor and/or others working under his supervision. Along the left hand side of the summary of experiments, there are row headings for the Chemicals used in the compositions and for the Test Results, including a row heading entitled "Date made". Looking at the data summary under Reference 909EU58C', it can be seen that on or before December 3, 1996, the inventor and/or others working under his supervision had prepared a composition by mixing (among other things) 0.18% Fluorosilane 3M FC 405/60 and 5.00% propylene glycol n-butyl ether (which is widely known to have the formula  $H-(CH_2)_4-O-(CH_2)_3-OH$ ). Likewise, under Reference 909EU58C'', it is shown that on or before December 3, 1996, the inventor and/or others working under his supervision had prepared a composition by mixing (among other things) 0.18% Fluorosilane 3M FC 405/60 and 2.50% propylene glycol n-butyl ether. Similarly, under Reference 909EU58C''', it is shown that on or before December 3, 1996, the inventor and/or others working under his supervision had prepared a composition by mixing (among other things) 0.18% Fluorosilane 3M FC 405/60 and 7.50% propylene glycol n-butyl ether.

Turning to Exhibit A, page 1 that is attached to the Declaration under 37 C.F.R. 1.608(b) of Richard W. Avery, the inventor specifically listed and attached to the original invention

disclosure the 3M Technical Bulletin that comprises pages 3-9 of Exhibit A. The 3M FC 405/60 organosilane is a fluor aliphatic silyl ether available from 3M Industrial Chemical Products. It is stated to have the general formula  $Rf-A-Si(OMe)_3$ , where Rf is a fluoroaliphatic group, and A is a linking group. More specifically, the active ingredient is 1-octanesulphonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-N- 3-(trimethoxy silyl) propyl.

Looking at page 5 of Exhibit A, the hydrolysis of the three (OMe) groups on the Si atom of the 3M FC 405/60 organosilane with 3  $H_2O$  molecules is clearly shown. The Rf-A- group on the Si atom is not shown as undergoing hydrolysis with  $H_2O$  molecules. Thus, the 3M FC 405/60 organosilane is properly described as an organosilane having three hydrolyzable groups (OMe) and one non-hydrolyzable organic group (Rf-A-).

Referring back to Exhibit A, page 2 that is attached to the Declaration under 37 C.F.R. 1.608(b) of Richard W. Avery, the summary of experiments shows that the inventor also recorded the initial stability and the stability after one month of the compositions, and the initial hydrophobic effect on glass and the hydrophobic effect on glass after the compositions aged for 1 month. Glass treatment is a desired utility for these components.

Turning to Exhibit A, page 1, the inventor reported that based on the test results "2.5%, 5% and 7.5% levels of the sparingly soluble PnB [propylene glycol n-butyl ether] in formulas 909EU58C', 909EU58C'', 909EU58C''' give good stabilisation and the fluoro-silane is still available for tethering after 1 month, [and it] should be noted that the hazy appearance of some of these formulas is not necessarily a negative for stability and the appearance could range from clear to hazy". Thus, the inventor had appreciated by that date that the compositions of formulas 909EU58C', 909EU58C'', 909EU58C''' were stable and suitable for glass conditioning even after being stored for one month.

Now, comparing claims 1, 2 and 3 of the present application to the mixtures 909EU58C', 909EU58C'', 909EU58C''' prepared in December 1996 by the inventor, it is clear that claims 1 and 2 of the present application both read on the mixtures 909EU58C', 909EU58C'', 909EU58C''' prepared in December 1996 by the inventor and that the mixtures 909EU58C', 909EU58C'', 909EU58C''' read on at least one species of claim 3. See Tables 1, 2 and 3 below.

Table 1

Term in Claim 1 of the Present Application	Support in Invention Disclosure of Inventor's Declaration
a) an organosilane of the formula $R_nSiX_{4-n}$ , wherein n is an integer of from 0 to 3; and R is, independently, a nonhydrolyzable organic group, and each X is, independently, a hydrolyzable group	When n=1, the organosilane in the claim is $R_1SiX_3$ where R is a nonhydrolyzable organic group, and X is a hydrolyzable group. The 3M FC 405/60 organosilane used in mixtures 909EU58C', 909EU58C'', 909EU58C''' of the invention disclosure has the general formula $R_fA-Si-(OMe)_3$ where $R_fA$ is a nonhydrolyzable organic group, and OMe is a hydrolyzable group. This is clearly supported by the 3M Technical Bulletin that was an integral part of the invention disclosure. Thus, the 3M FC 405/60 organosilane meets the general formula $R_1SiX_3$ where R is a nonhydrolyzable organic group, and X is a hydrolyzable group.
b) an ether of the formula R-O-R, wherein R is, independently, an organic group, and the ether has a hydroxy functionality.	The composition of the invention disclosure uses propylene glycol n-butyl ether which has the formula $H-(CH_2)_4-O-(CH_2)_3-OH$ . The R groups of propylene glycol n-butyl ether (i.e., $H-(CH_2)_4-$ and $-(CH_2)_3-OH$ ) are organic groups and there is one hydroxyl (-OH) group in the ether.



Table 2

Term in Claim 2 of the Present Application	Support in Invention Disclosure of Inventor's Declaration
a) an organosilane of the formula $R_nSiX_{4-n}$ , wherein n is an integer of from 0 to 3; and R is, independently, a nonhydrolyzable organic group, and each X is, independently, a hydrolyzable group	When $n=1$ , the organosilane in the claim is $R_1SiX_3$ where R is a nonhydrolyzable organic group, and X is a hydrolyzable group. The 3M FC 405/60 organosilane used in mixtures 909EU58C', 909EU58C'', 909EU58C''' of the invention disclosure has the general formula $R_fA-Si-(OMe)_3$ where $R_fA$ is a nonhydrolyzable organic group, and OMe is a hydrolyzable group. This is clearly supported by the 3M Technical Bulletin that was an integral part of the invention disclosure. Thus, the 3M FC 405/60 organosilane meets the general formula $R_1SiX_3$ where R is a nonhydrolyzable organic group, and X is a hydrolyzable group.
b) an ether of the formula R-O-R, wherein R is, independently, an organic group, and the ether has a hydroxy functionality,	The composition of the invention disclosure uses propylene glycol n-butyl ether which has the formula $H-(CH_2)_4-O-(CH_2)_3-OH$ . The R groups of propylene glycol n-butyl ether (i.e., $H-(CH_2)_4-$ and $-(CH_2)_3-OH$ ) are organic groups and there is one hydroxyl (-OH) group in the ether.
wherein the ether is a glycol ether	The composition of the invention disclosure uses propylene glycol n-butyl ether which is a glycol ether.

Table 3

Term in Claim 3 of the Present Application	Support in Invention Disclosure of Inventor's Declaration
wherein the ether is selected from dipropylene glycol butyl ether, propylene glycol butyl ether, and dipropylene glycol propyl ether.	The composition of the invention disclosure uses propylene glycol n-butyl ether.

It is respectfully submitted that the foregoing analysis of the Declaration under 37 C.F.R. 1.608(b) of Richard W. Avery, applicant herein, shows that the inventor actually prepared the composition of claims 1 and 2 of the present application and at least a species of claim 3, tested that the compositions would work for a desired utility, and appreciated the successful results, at

least as early as January 23, 1997, all in the United Kingdom. Because the inventor of the above-referenced application reduced to practice the invention of claims 1 and 2 and a species of claim 3 of the present application prior to the critical reference date of U.S. Patent No. 6,113,815 (July 18, 1997), the Applicant is *prima facie* entitled to an award of priority over the interfering claims of U.S. Patent No. 6,113,815.

Respectfully submitted,

Dated: 8/31, 2001

By: 

J. William Frank, III  
Registration No. 25,626  
S.C. Johnson & Son, Inc.  
Legal Department  
1525 Howe Street  
Racine, WI 53403  
(262) 260-2673

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Richard W. Avery

Serial No.: -----

Filed: Herewith

Title: PRODUCTION OF STABLE HYDROLYZABLE ORGANOSILANE SOLUTIONS

Commissioner for Patents  
Washington, D.C. 20231

Inventor's Declaration Under 37 C.F.R. 1.608(b)

Sir:

I, Richard W. Avery, the named inventor of the above-identified patent application,  
hereby declare as follows:

1. I conceived and reduced to practice in the United Kingdom prior to July 18, 1997  
the invention specified in the attached claims which I understand are those pending in the above-  
identified patent application and which I understand are believed to correspond to the proposed  
counts.

2. This is evidenced by attached Exhibit A, an accurate photocopy of an Invention  
Disclosure that I signed on 23-January-1997 in the United Kingdom (albeit the "EL97/80"  
tracking number, the NJ "2605" number, and the submission approval signature were later  
added). Page 2 of Exhibit A shows formulas that I, or others acting under my supervision,  
prepared in November and December 1996 in the United Kingdom. It is an accurate summary

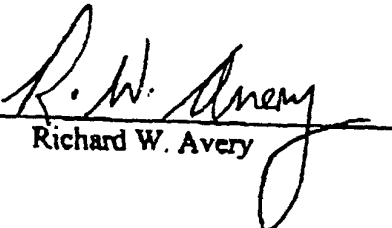
created at least as early as January 23, 1997 in the United Kingdom of tests I, or others acting under my supervision, performed.

3. The Exhibit A Invention Disclosure confirms that I prepared in December 1996 a composition by mixing (among other things) an organosilane with three hydrolyzable groups and one nonhydrolyzable group (3M FC 405/60) and propylene glycol n-butyl ether, which has the formula  $H-(CH_2)_4-O-(CH_2)_3-OH$ . The 3M FC 405/60 organosilane (as shown in the 3M Technical Bulletin specifically referenced by me in the Invention Disclosure) is a fluor aliphatic silyl ether available from 3M Industrial Chemical Products. It is stated to have the general formula  $R_f-A-Si(OMe)_3$ , where  $R_f$  is a fluoroaliphatic group, and A is a linking group. More specifically, the active ingredient is 1-octanesulphonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-N- 3-(trimethoxy silyl) propyl. I recorded the physical and chemical stability of the mixtures, and their utility for glass conditioning.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

Dated: August 23, 2001

By:   
Richard W. Avery